



CN Heritage Range of Slim Double glazed Units manufactured by us using the latest glass and glazing technology available

- CN Heritage Slim Units are specifically produced for period/ historic windows and doors with a 2 Year Guarantee
- CN Heritage Slim Units are produced using Super Spacer Warm Edge Technology and will reduce heat lost through your windows
- CN Heritage Slim Units have low sightlines for glazing into narrow glazing bars
- CN Heritage Slim Units will reduce the intrusion of unwanted noise and condensation. Acoustic glass available
- Delivery nationwide for supply only



Glass is a good insulator but it would need to be very thick as a single pane in a window to have much effect.

So rather than have thick glass in your windows it is better to have two panes of glass with an inert gas between them.

Repair is the first option to consider when seeking to maintain the character of a building, Sections of the frame that are no longer sound can be cut out and replaced. Where necessary the rebates can be routed out slightly to provide enough depth for the Heritage units to be installed. Sashes can be freed, cords replaced and draught-proofing materials added discreetly.

When looking to improve the thermal performance of a building the windows are a building component where there are many factors to consider. This is particularly the case for single-glazed windows in older and historic buildings. The outright replacement of the windows in Listed buildings is often considered inappropriate, for conservation reasons.

Most traditional timber windows incorporate low line glazing beads. This creates problems with standard aluminium or warm edge spacer bar protruding into the sightline of the window, Super Spacer has a lower sightline from the edge of the glass.

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Workshop & Showroom:
 Norton House, Beaumont Road, Banbury, OX16 1SD



Making and Glazing CN-Slim Heritage Double Glazed Units

Glass

A CN Heritage Slim Unit that will fit into a minimum 17mm rebate the outside glass will be 3mm thick and the inside glass 4mm thick, this will produce an overall unit of 11mm depth. The glass can be simply clear or patterned annealed/float glass, for safety it can be toughened, for an improved thermal performance it can be Low E Energy Saving glass.

(3mm glass cannot be toughened, safety filming can be used)

For new replica timber windows the rebate will be slightly deeper allowing for both internal and external glass to be 4mm therefore the overall depth of the unit will be 12mm.

Restoration Glass

The only remaining traditional method of flat glass making is the cylinder process (known as hand drawn or restoration glass).

This is now used in restoration projects that would originally have utilised crown glass.

Glass is gathered on the end of a pipe and placed on a block of hollowed-out wood. The glass is blown and then re-heated. The blower swings the glass "pipe" in a vertical plane until it is elongated into a cylinder. The cylinder is then split down lengthways.

The split glass is then re-heated and flattened on a smooth stone and then annealed. This process allows the colour range to be limitless; the glass is used ecclesiastically, commercially, domestically and for restoration purposes. It is also easier to make in comparison to any of the other processes.

This type of glass has no impact on the U-value of the unit, it is just the same as ordinary annealed/ float glass.

Glazing

We bed the units on Hodgeson U9 Low Modulus silicone, centralising the unit within the frame using glazing spacers, filling the void between frame and glass with the low modulus silicone, this allows both movement and a waterproof seal. Allow the silicone to cure and then face putty using Hodgsons oil free Multi-Purpose or Butyl putty or use timber glazing beads and stainless steel nails and capping off with the Hodgeson U9 Low Modulus silicone to finish. Putty is then brushed with a soft brush and painted 5-10 days later in outdoor conditions.

Edgetec Super Spacer Heritage

To produce our CN-Slim Heritage Double Glazed Units we use the Edgetech Super Spacer Heritage Bar that introduces a no-metal, pre-desiccated, structural foam spacer system that is a warm edge technology to suit all sealed glass unit applications.

The bar is visually neutral in appearance and blends very well with any frame finish.

The Super Spacer Heritage bar is specifically developed and produced with the restoration, replication and refurbishment customer in mind. The depth of the bar is just 3mm to enable for slim sightlines so with the cavity option of 4mm, our CN Slim Heritage units may be produced to an overall glass depth of 11mm, this means they will fit into a 17mm rebate.

Inert Gases

Krypton gas is the usual choice for our heritage double glazed units, Krypton is a heavy inert gas and has a much lower thermal conductive performance and an improved acoustic performance than air and this means that it is a far more efficient insulator making Krypton gas excellent at reducing the U-value when injected into the cavity of our CN-Slim Heritage double glazed units.

Technical Glass

By using the technical glasses available today and by filling the space between the two panes of glass with an inert gas a home owner may gain all the thermal and sound benefits of normal double glazing without compromising the appearance or the value of their property.

CN-Slim Heritage double glazed units have the appearance of single glazing therefore retaining the character, charm and heritage of the building. Only a very close inspection will reveal the glass to be a double glazed unit especially if restoration glass is used. The reduction of heat loss through the glass is up to 77 per cent as when compared against single glazing. When glazed traditionally into sash/casement window frames the units are virtually undetectable because slim units do not have the double reflection or the distorted reflection that is seen when you sometimes look at standard double glazing, making them perfectly suitable for conservation or listed buildings.

(subject to local planning).

U-Values (the term used to measure thermal efficiency)

A U value is a measure of heat loss in a building element therefore it is the measurement of the whole window and not just the glass.

It can also be referred to as an 'overall heat transfer co-efficient' and measures how well parts of a building transfer heat. This means that the higher the U value the less efficient the thermal performance of the building element.

A low U value usually indicates higher levels of insulation.

The thermal efficiency benefits of CN Slim heritage Double Glazed Units over single glass can be seen below:

Single Glass – U-Valueis approx. 5.6 W/m²K

Glass 1 (External)	Cavity	Glass 2 (Internal)	Centre Pane U-Value
4mm Float/Toughened *	4mm Krypton Filled	4mm Planitherm Total Plus Low E	1.9W/m ² K
4mm Float/Toughened *	6mm Krypton Filled	4mm Planitherm Total Plus Low E	1.5W/m ² K

***Or 3mm Restoration glass**

Terms and conditions apply.